

20030227.qrp v02_n844.qrl.20030227

Date: Thu, 27 Feb 2003 19:03:07 EST
From: qrp-l@Lehigh.EDU
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Subject: QRP-L digest 2844

QRP-L Digest 2844

Topics covered in this issue include:

- 1) [146725] RE: Origin of "Pesky Texans"
by David Hinerman <WD8CIV@worldnet.att.net>
- 2) [146726] Re: Mounting IC's Manhattan style
by Ingo Meyer DK3RED <dk3red@gmx.net>
- 3) [146727] SK: Pioneer 10
by "Brad Hernlem" <alihernlem@hotmail.com>
- 4) [146728] FOX: Fox Message
by "Karl F. Larsen" <k5di@zianet.com>
- 5) [146729] 10 More 10 Turn Pots
by "Brian" <brian@iquest.net>
- 6) [146730] DSW-80 For a Blind Amateur
by "Bruce Prior" <n7rr@hotmail.com>
- 7) [146731] Again the Channel Modem
by "Brad Hernlem" <alihernlem@hotmail.com>
- 8) [146732] Homebrew linear amp story Pt 2--Things heat up!
by Nick Kennedy <nkennedy@tcainternet.com>
- 9) [146733] QRP plaques...
by Bruce Ratray <rattray@gpfn.sk.ca>
- 10) [146734] NEQRP CW Net, Thursday, 27 Feb 03, 08:30 PM EST, 3.565 MHz
by Chuck Ludinsky <cjl@mitre.org>
- 11) [146735] Re: Mounting ICs with Manhattan packaging
by Thom LaCosta <baltimoremd@baltimoremd.com>
- 12) [146736] About a billion miles per watt
by Tim Groat <tcgroat@earthlink.net>
- 13) [146737] testing out setup..
by sergio <sergio@village-buzz.com>
- 14) [146738] Atlanticon Speaker: Jim Kortge, K8IQY
by "George Heron N2APB" <n2apb@erols.com>
- 15) [146739] Embedded Research
by "John" <jdorson@worldshare.net>
- 16) [146740] Re: About a billion miles per watt
by "Mike Yetsko" <myetsko@insydesw.com>
- 17) [146741] March Spartan Sprint Announcement
by "John Huffman" <hjohnc@core.com>
- 18) [146742] Re: Embedded Research
by Larry Przyborowski <k3peg@comcast.net>
- 19) [146743] Small Wonders Lab SW20 kit

- by "Al Gerbens" <agerbens@msn.com>
- 20) [146744] Pioneer 10 SK reading yields a bunch of ham software
by John R Kirby <n3aaz-qrp@juno.com>
- 21) [146745] Re: SK: Pioneer 10
by David Hinerman <WD8CIV@worldnet.att.net>
- 22) [146746] Spartan Sprint Bonus
by "John Huffman" <hjohnc@core.com>
- 23) [146747] Re: Again the Channel Modem
by David Hinerman <WD8CIV@worldnet.att.net>
- 24) [146748] Re: Embedded Research
by ae5x@netscape.net (John Harper AE5X)
- 25) [146749] Pioneer signals at -183 dbm
by "Scott Rosenfeld [N7JI]" <ham@w3eax.umd.edu>
- 26) [146750] Re: Homebrew linear amp story Pt 2--Things heat up!
by KD5NWA <KD5NWA@cbayona.com>
- 27) [146751] Elecrafft qso party & SOC Marathon Sprint
by Bob Patten <n4bp@bellsouth.net>
- 28) [146752] Embedded Research is alive
by "Bill Kelsey - N8ET - Kanga US" <kanga@bright.net>
- 29) [146753] Re: Again the Channel Modem
by "W8TIF - Karl" <kkanalz@gcecispc.com>
- 30) [146754] Re: Embedded Research
by "Mike" <kw1nd.web@homeinternet.net>
- 31) [146755] Re: SK: Pioneer 10
by Steve.Lawrence@ITWFEG.COM
- 32) [146756] [CONTEST] N2CQ QRP Contest Calendar - March 2003
by "Ken Newman" <N2CQ@Dandy.Net>
- 33) [146757] ARRL International DX Contest
by Bruce Rattray <rattray@gpfn.sk.ca>
- 34) [146758] FOX Hunts *Tonight* [g]
by "Doc K0EVZ" <dock0evz@earthlink.net>
- 35) [146759] Re: SK: Pioneer 10
by David Hinerman <WD8CIV@worldnet.att.net>
- 36) [146760] Re: Embedded Research
by "John" <jdorson@worldshare.net>
- 37) [146761] Re: Atlanticon Speaker: Jim Kortge, K8IQY
by jhecht@dnaco.net
- 38) [146762] Re: Pioneer signals at -183 dbm
by Alex <kr1st@amsat.org>
- 39) [146763] Re: ARRL International DX Contest
by Bob Nielsen <nielsen@oz.net>
- 40) [146764] Re: SK: Pioneer 10
by "Graeme Zimmer" <gzimmer@bigpond.com>
- 41) [146765] Re: SK: Pioneer 10
by David Hinerman <WD8CIV@worldnet.att.net>
-

Date: Wed, 26 Feb 2003 13:58:01 -0500
From: David Hinerman <WD8CIV@worldnet.att.net>
To: qrp-l@lehigh.edu
Subject: [146725] RE: Origin of "Pesky Texans"
Message-ID: <5.1.1.6.1.20030226135425.00a75d70@ipostoffice.worldnet.att.net>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"; format=flowed

>However, being the innate gentlemen that we are, we have not coined such
>derogatory terms of endearment as "<make up your own adjective> Floridians."
>One alliterative one comes immediately to mind, but this is a family
>reflector . . .

George,

Florid (as in red-faced) Floridians? You must come from a pretty
straight-laced family. (Grin)

Dave

Dave Hinerman
WD8CIV@worldnet.att.net

Date: Wed, 26 Feb 2003 20:26:02 +0100
From: Ingo Meyer DK3RED <dk3red@gmx.net>
To: qrp-l@Lehigh.EDU
Subject: [146726] Re: Mounting IC's Manhattan style
Message-ID: <5.1.1.6.1.20030226201713.020130f0@pop.gmx.net>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"; format=flowed

Hello Joe,

>Been reading about making small pads for 8/16 pin dips using
>small hacksaws, etc.

If you know the "NJ Islander" and the methodes form mounting IC's with this
style, so you have the pattern for the manhattan style (with pads instead
of islands). Some infos for the island style are on the homepage of the NJ
QRP club (URL ?), in the magazine QRP homebrewer and on my homepage at

www.t-online.de/~dk3red/de/s9.htm#wz1 .

>Any commercial sources out there to fabricate this rascals and
>then sell them by the fifties or hundreds to hams???

Also. ;o) www.rdi-wainwright.com but not cheap. :o((

72/73 de Ingo, DK3RED Don't forget: the fun is the power!

dk3red@t-online.de	http://www.t-online.de/~dk3red
DL-QRP-AG #824	http://www.dl-qrp-ag.de
QRP ARCI #11295	http://www.qrparci.org

Date: Wed, 26 Feb 2003 20:35:45 +0000
From: "Brad Hernlem" <alihernlem@hotmail.com>
To: qrp-l@lehigh.edu
Subject: [146727] SK: Pioneer 10
Message-ID: <F48n5IucxWNoqiGAeGn00004a62@hotmail.com>
Mime-Version: 1.0
Content-Type: text/plain; format=flowed

<http://www.sciencedaily.com/releases/2003/02/030226073614.htm>

Pioneer 10 Spacecraft Sents Last Signal To Earth

Tired of spam? Get advanced junk mail protection with MSN 8.
<http://join.msn.com/?page=features/junkmail>

Date: Wed, 26 Feb 2003 13:49:14 -0700 (MST)
From: "Karl F. Larsen" <k5di@zianet.com>
To: qrp-l@lehigh.edu
Subject: [146728] FOX: Fox Message
Message-ID: <Pine.LNX.4.44.0302261347170.10036-100000@bucket.dog>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

On Friday February 28 in England at 2 AM in the morning I will be one of your Fox for this week. If you live in the USA or Canada or Mexico this event occurs at an earlier more convenient time. In the Mountain Time Zone a 2AM Friday start is still Thursday at 7 PM. You can figure out when in your area. But the 2AM England time explains why we do not have many Hounds in England.

Ron, W8RU is in Detroit Michigan, North of Canada and will be the other Fox. I live in Las Cruces, NM 50 miles north of El Paso TX. If you need NM I do QSL. My frequency will be below 7.040 MHz and I will choose a frequency so the Hounds can call from above my frequency.

My antenna is a Butternut Vertical striped down to just a full size 1/4 wave vertical at 7.040 MHz. It is on the roof with 4 radials that are tuned to the above frequency. This will be my antenna for the entire 2 hours. My radio is a Yaesu FT-817 with the Collins Mechanical Filter for CW. I will look 1-2 KHz above my frequency for you Hounds with the Preamp off, 10 DB pad on, and AGC off. This should help me find the strongest Hound. I plan to work the strongest Hounds first, to get them looking for Ron. Later I will work with the weak ones.

--

- Karl Larsen k5di Las Cruces, NM Az ScQRPions -

Date: Wed, 26 Feb 2003 16:14:36 -0500
From: "Brian" <brian@iquest.net>
To: "Flying Pigs" <fpqrp-1@fpqrp.com>, "QRP-L" <qrp-1@Lehigh.EDU>
Subject: [146729] 10 More 10 Turn Pots
Message-ID: <004701c2dddc\$1154f800\$9b632bd1@bmurrey2K>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

I have 10 more of the 10 turn 50K precision pots for sale now. This is probably all I can get.

These are Bourns Part number 3500S-2-503

This pot lists at about \$50 each.

These are new, not pulls.

\$18.00 each includes USA shipping. Limit two per person. The last time

I had these I had 8 for sale and some guys didn't get one because I ran out.

Cash, check, or paypal is fine.

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=====
KB9BVN/QRP - New Whiteland IN - EM69WN
QRP-ARCI #10223 QRP-L #1540 FIST #5695
FISTS CC #764 - Proud Member ARRL
HEATH HW-9 @ 2W or NORCAL 40A @ 1.3W
INTO INFAMOUS AF4PS ATTIC DIPOLE
SOC #400 AND FLYING PIGS QRP #-57
=====
```

Date: Wed, 26 Feb 2003 21:32:53 +0000
From: "Bruce Prior" <n7rr@hotmail.com>
To: qrp-l@Lehigh.EDU
Subject: [146730] DSW-80 For a Blind Amateur
Message-ID: <BAY1-F137A0AkK5LqN30001edca@hotmail.com>
Mime-Version: 1.0
Content-Type: text/plain; format=flowed

A friend of mine has now lost both his mother and father and is living alone in British Columbia. He's a superb CW operator and he's blind. I wonder if there is anybody out there with a DSW-80 (or perhaps any other DSW) which is gathering dust, (or even not yet assembled) which could be donated to this amateur. If it's an unassembled kit, then I'll complete it for him. I'll also get him fixed up with the appropriate cables. Since the DSW rigs are operated completely using aural and tactile feedback, they are excellent for white cane CW ops. I live just south of the BC border, so I can arrange to get the rig delivered to this fine amateur. Please respond off list.

Thanks and 72,
Bruce Prior N7RR

Help STOP SPAM with the new MSN 8 and get 2 months FREE*
<http://join.msn.com/?page=features/junkmail>

Date: Wed, 26 Feb 2003 21:52:03 +0000
From: "Brad Hernlem" <alihernlem@hotmail.com>
To: qrp-1@lehigh.edu
Subject: [146731] Again the Channel Modem
Message-ID: <F1663pj3P7CZxfxaqq60000ef29@hotmail.com>
Mime-Version: 1.0
Content-Type: text/plain; format=flowed

A little over a year ago I posted a few messages asking about some boards that I found which contained a brace of mechanical filters. I traced out the circuit as best as I could and had a pile of crude notes which I filed away. The other day I got an e-mail asking about those boards. This got me motivated to redraw the notes so that the circuit was a bit more understandable (well, you decide). I posted the drawings at:

<http://www.geocities.com/alibhernlem/Radio/ChannelModem.html>

I've been scheming to use these to build a SSB transceiver but haven't developed a plan yet for the outboard bits. One of the questions that I have about the board itself is what purpose do those associated transistors serve in the '741 TX Audio circuit? The audio is apparently amplitude limited but I have never seen a circuit like this. Also, what exactly does a "phase equalizer" do?

Any comments on this board, its function, its history, &c. are greatly appreciated.

Brad KG6IOE

Add photos to your e-mail with MSN 8. Get 2 months FREE*.
<http://join.msn.com/?page=features/featuredemail>

Date: Wed, 26 Feb 2003 19:10:42 -0600
From: Nick Kennedy <nkennedy@tcainternet.com>
To: "Low Power Amateur Radio Discussion (E-mail)" <qrp-1@Lehigh.EDU>
Subject: [146732] Homebrew linear amp story Pt 2--Things heat up!
Message-ID: <01C2DDCA.C27D0260.nkennedy@tcainternet.com>
MIME-Version: 1.0

Content-Type: text/plain; charset="us-ascii"
Content-Transfer-Encoding: 7bit

The continuing story of one man's attempt to comprehend and tame a push-pull 10 watt linear amp ...

I said plenty about the temperature compensated bias circuit except maybe one thing: Since there's just one compensating diode, I can only stick it on one transistor. Maybe that's OK, but we've all done power supplies with multiple transistors in parallel and had to use the little emitter resistors to make them share current equally, right? There's no emitter resistor here. Maybe the RF drive keeps things on the straight and level?

I hope. Remember that with DC bias, the transistors are both driven together, and one may (will) turn on sooner than the other. But with RF drive, the two transistors "take turns" conducting. So if RF drive accounts for the majority of transistor dissipation (as it should), they should heat up about the same amount.

I started out fairly carefully, verifying that the bias supply's control had the proper range before I'd even installed the transistors, and then cranking it to a low level, like 0.2 volts. Then I installed the transistors and put my DMM in series with the Vcc supply to them. Adjusted the bias and verified that after a moderate rise in I_c over several minutes, it did steady out.

Now time to make some RF! I figured that if this thing is really linear, I could drive it to a low level using my MFJ-259B as a signal generator. Am I being idealistic? First I noted that the MFJ put about 1.9 Vp-p out to 50 ohms as seen on the scope. Then put the MFJ in service driving the amp and the amp's output to 50 ohms, monitored by the scope. I'm not using a LPF at this point, so a reasonably sinusoidal looking waveform ought to clean up nicely. I also don't have the milliammeter in service any more. (Cue ominous music.)

Fire everything up. I see a fairly decent looking output waveform several times the amplitude of the input, so it seems to be working. I stare at it for several seconds and it starts growing. Before too many seconds pass, the amplitude of the output has doubled and is still increasing! I push the panic button and jerk the alligator clip off the battery. Then I calculate the maximum output power and it's only about 0.6 watt. So no apparent danger, but does GAIN increase dramatically with temperature also?

Is that something I was supposed to know but forgot? I guess so. Anyway, I hook it up again for another look. Playing with the bias control, I see that with less bias, the waveform is uglier and also smaller (gain reduced). But again I'm seeing the thing take off on its own.

This time I decide to see if it will stabilize. It climbs up and fills the

o-scope screen and then, ping!, suddenly drops down by 75%. Sinking feeling in the stomach. Now, I'll hardly bend down to pick up either a dropped penny or a 2N3904, but these things were \$3.50 apiece! Some facts become clear. A fuse would have been a nice touch. A current limited power supply would have been good. Monitoring the supply current might not have been a bad idea. I'm assuming that even though RF power was not out of hand, the DC current must have been running away, and that's not something I can see on the scope.

So then I give the amp a few hours to cool off, and give myself a full day to cool off. Did I destroy one or both transistors? After the cool-off period, I hook it up again ... maybe it's working about the same as before, not sure. I see the output go way up. Shut it down and decide to check the temperature of the transistors. Here's an empirical rule: The temperature of a transistor is directly proportional to the speed with which you withdraw your hand after touching the tab. Yep, it's really hot.

That's where I am now. Now, why is all this happening? Is this a DC thermal runaway problem? Or an RF problem? Am I compensating on the wrong transistor? One thought I had is to put a diode on each transistor and wire them in parallel. This gives what's called a "low select" circuit.

The hotter transistor will control the bias voltage. That's starting to sound like a good idea.

But what about the increase in gain? These kinds of circuits typically have RF feedback and this one is no different. From each collector is a 150 ohm resistor connected back to base through a blocking capacitor. And a 39 ohm resistor from base to ground. I assume this is supposed to limit what I'm seeing.

How about operating with low drive power as I'm doing? Maybe that allows the thing to get into the DC operating point asymmetry that would be overridden by RF power with the proper amount of drive. DeMaw says that you need adequate drive to overwhelm a tendency to self-oscillation. But I didn't see the oscillations on the scope. (I have seen this low drive problem on some of my old Ten Tecs. As I reduced drive, output would drop smoothly and then suddenly jump up to a high value.) Maybe my next step should be to drive the amp with a moderate amount of power. The oscillations could exist at a very low frequency, not visible on the scope.

Another text said that some emitter degeneration is a good idea, although it reduces gain somewhat. That would mean a small value resistor in the emitter lead. I don't often see that done though. How about a bypassed emitter resistance, to force equal DC currents but not affect the RF gain?

I haven't seen that done (in push-pull configuration) either, so there must be a reason. Maybe it's just not generally necessary.

That's the end of part II. More experimentation is needed.

Some lessons:

- 1) Protect expensive transistors during the initial test phase. Fuse, current limit, monitor. It's usually axiomatic that you can't protect semiconductors with fuses, but for current transients that aren't extremely fast, you probably can.
- 2) When using a finger for a temperature probe, lick it first. Withdraw at the first detection of a 'sssst' sound.
- 3) Read, experiment, blow-up, cuss, discuss, learn stuff, repeat as necessary.

72,

Nick, WA5BDU
in Arkansas

Date: Wed, 26 Feb 2003 19:34:36 -0600 (CST)
From: Bruce Rattray <rattray@gpfn.sk.ca>
To: QRP-Canada <qrp-canada@neale.gpfn.sk.ca>,
Low Power Group <qrp-1@LeHigh.EDU>
Cc: Mary Cherry <mary@na6e.com>
Subject: [146733] QRP plaques...
Message-ID: <Pine.LNX.4.33.0302261902250.29242-100000@neale.gpfn.sk.ca>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

The donations have started coming in so that QRP-Canada can sponsor the QRP Plaques for the RAC Canada Day & Winter contests for another 5 years...the donors so far are:

(Earl, VA6RF),(Pat, VE6AAN),(Guy, VA2SVP),(Bob, VE3GND),
(Doug, VE4TG),(Bruce, VE5RC)....

...we have the first \$100.00 of the \$500.00 Cdn total.....

....further donations, any amount, may be mailed to myself at...

Bruce Rattray, VE5RC
128 Durham Drive
Regina, SK. S4S 4Z2
Canada

...as we hear on the nets and the contests, "anyone, anywhere!" or
any money from anywhere!...hihi...thank you very much...

..72/73 - Bruce (VE5RC+VE5QRP) QRP-C#1 QRP-L#886 ARCI#9683 Zombie#272
A-1 Operator Club - 10/10# 944 - QRP Borg#1 - Whiner#10 -
- VE5QRP SOC#11 - VE5RC SOC#12 - oo#148 - K2#2032 - COG#15 -
"QRP! How sweet it is!" "I am da man wit "DAH" paddle!"

Date: Wed, 26 Feb 2003 20:35:54 -0500
From: Chuck Ludinsky <cjl@mitre.org>
To: neqrp@jonal.net, qrp-l@lehigh.edu
Subject: [146734] NEQRP CW Net, Thursday, 27 Feb 03, 08:30 PM EST, 3.565 MHz
Message-ID: <3E5D6B7A.5050206@mitre.org>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii; format=flowed
Content-Transfer-Encoding: 7bit

The New England QRP Club's 80M CW net, WQ1RP, will meet again on
Thursday, 27 February 2003, at 8:30 PM EST (01:30Z, 28 Feb 03) on or
near 3.565 MHz. All hams are welcome. Net control operator will be
Chuck, K1CL, operating from Chelmsford, MA.

Last week's net had an excellent turnout, with 11 participants, great
conditions, and two new check-ins:

N1VS	Vince	Winsted, CT	599
WA8BXN	Mike	nr Cleveland, OH	599
WB1HBE	John	Chelmsford, MA	599
AB1CW	Ed	Tyngsboro, MA	599
N1PT	Dave	Lancaster, NH	599
WA2NCT	Richard	New York City, NY	339
N1CUU	Carl	nr Gettysburg, PA	599
AA1MY	Seab	Bethel, ME	599
W1CFI	Paul	Falmouth, MA	599
W2SH	Chas	Millington, NJ	589
K1CL	Chuck	Chelmsford, MA	net op

Thanks to everyone for QNI'ing, and welcome to Dave and Richard. Hope to hear you all again this week.

72 DE K1CL,
Chuck

Date: Wed, 26 Feb 2003 20:47:55 -0500 (EST)
From: Thom LaCosta <baltimoremd@baltimoremd.com>
To: AI2Q <ai2q@adelphia.net>
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [146735] Re: Mounting ICs with Manhattan packaging
Message-ID: <20030226204704.C24772-100000@unix1.vhost.min.net>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

On Wed, 26 Feb 2003, AI2Q wrote:

>
> I have many digital photos of this project, but haven't been able to get
> them posted (no Web site/time here) yet. KA1AXY, Pete, said he'd post my
> JPEGs, but I haven't composed everything yet to send to him. Maybe someone
> else will assist me if they want to see the rig. I have OrCAD-based
> schematics saved as both .TIF and .PDF files, and lots of JPEGs of all
> stages of construction.

Send the files and some copy and I'll be happy to put them up at
www.zerobeat.net/qrp

Thom

baltimoremd@baltimoremd.com
<http://www.baltimoremd.com/>
<http://www.baltimorehon.com/>
<http://www.zerobeat.net>
<http://www.tlchost.net>

Thom LaCosta K3HRN Webmaster
Baltimore's Home Page
Home of the Baltimore Lexicon
Home of The QRP Web Ring and DrakeList
Web Hosting as low as \$3.49/month

Date: Wed, 26 Feb 2003 20:05:17 -0700
From: Tim Groat <tcgroat@earthlink.net>
To: qrp-l@lehigh.edu
Subject: [146736] About a billion miles per watt

Message-ID: <5.1.1.6.2.20030226194104.00a0c510@mail.earthlink.net>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"; format=flowed

The all-time miles per watt champion has finally fallen silent. At the end, path loss for the X-band path from Pioneer-10 to earth was about 315dB! Transmitter output is a not-quite-QRP 8W, but at 7.6 billion miles how can you complain about that? Read about it in the NASA press release.

http://amesnews.arc.nasa.gov/releases/2003/03_25HQ.html

72,

--Tim (KROU)

Date: Wed, 26 Feb 2003 22:22:14 -0500
From: sergio <sergio@village-buzz.com>
To: qrp-l@Lehigh.EDU
Subject: [146737] testing out setup..
Message-ID: <5.1.1.6.0.20030226222122.0213fc80@mail.neobright.net>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"; format=flowed

i will be calling some cq's on 40 with a test setup ..

if anyone hears me, can you answer back REALLY slowly?

thanks!

peace,
sergio
www.village-buzz.com - "the village buzz"
www.mp3.com/village_buzz - "the rock n roll, baby!"
www.coffee-black.com - rock photo!
phone ... 419 606 0557
to subscribe to The Village Buzz, send a blank email to:
VB-Announce-subscribe@yahoogroups.com
www.amazon.com/o/registry/3L7DM7FMR50QU <- buy me some swag!

Date: Wed, 26 Feb 2003 23:11:41 -0500
From: "George Heron N2APB" <n2apb@erols.com>
To: "EPA-QRP" <EPA-QRP@yahooogroups.com>, "NJQRP" <njqrp@njqrp.org>,
"NoVAQRP" <NoVaQRP@topica.com>, "QRP-L" <qrp-l@lehigh.edu>
Subject: [146738] Atlanticon Speaker: Jim Kortge, K8IQY
Message-ID: <00c301c2de16\$5b0890d0\$2dc13ad0@GHLTP4>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 8bit

We are so very proud and excited to have a return engagement of JIM KORTGE, K8IQY at the Atlanticon QRP Forum coming up in just four weeks now. (See <http://www.njqrp.org/atlanticon/Atlanticon2003.html> for all the details on the Atlanticon weekend in Baltimore on March 28-29.)

As many of you know, Jim is a master craftsman of Manhattan-style construction projects and has contributed solid and useful designs to our QRP community. These include the 2N2/40 Transceiver, the Precision Variable Crystal Oscillator (<http://www.njqrp.org/pvxo/index.html>), and the Islander Audio Amplifier (<http://www.njqrp.org/islanderamp/index.html>). K8IQY is the newest member of the QRP Hall of Fame and he has a great presentation lined up for this year's Atlanticon ...

"The K8IQY 2N2/30"

... A 30-Meter, Discrete Component, CW Transceiver

This presentation will overview the design, construction, and performance of a 30-meter, discrete component CW transceiver based on the author's previous award winning 2N2/40 design. New and revised circuits are employed, providing improved performance over the 2N2/40 while retaining the straight forward, Manhattan-style construction approach. Details will be provided for using SMT components with this construction method. This new design carries forward the extensive use of PN2222 transistors, while also employing other discrete, active devices to enhance performance and reduce construction effort.

About Jim Kortge, K8IQY ...

Jim was first licensed in November of 1957 as KN8IQY, at age 14. Sometime later in the summer of '58, he advanced to Conditional class, and call K8IQY. The Conditional class license was issued to those living more than 125 miles from an FCC office, and unable to test before an FCC examiner.

He first operated QRP on 75 meters as a novice, using a single 6AQ5 oscillator, and later on 160 meters, using an AM rig consisting of a 6AQ5 oscillator modulated by a second 6AQ5. Back then, 6AQ5 tubes were akin to

today's 2N2222 transistor. Those rigs were the beginnings of his building career.

Jim's formal education was at Michigan Tech University; he graduated in 1966 with a BS Degree in Engineering Physics. The next 31 years were spend working for General Motors at their Vehicle Safety and Crashworthiness Laboratory, part of the GM Proving Ground, near Milford, Michigan. His responsibilities while at the lab included instrumentation systems design, crash test dummy design, and software design. He held numerous supervisory and middle management positions, and was the "head dummy" for several years.

His original call lapsed in the early 1970's due to interest changes, and raising a family. He returned to amateur radio in 1988 with call NU8N. His new license was obtained in one 5 hour VE session where he passed all of the written and CW test elements in a single sitting. He regained his original K8IQY call when the FCC began the vanity licensing programs, and gave first priority to previous holders of their old calls.

Jim retired from GM in the summer of 1998, and spends his time riding bicycle and operating bicycle mobile when the weather is good. He has also been learning RF design since retirement; applying that knowledge to designing and building QRP gear, most of it discrete component, and specialized test equipment. His free time has also allowed him to return to his music, and he is back playing guitar with a local big band. . Recently, he restarted bluegrass banjo picking in anticipation of some gigs with daughter Amy.

He has been married to Kathy, KB8IMP for 36 years, and they have a son and a daughter. Both children are engineers, working for GM, helping to fund their dad's retirement. In 2002, Jim was presented with the NJQRP "Most Significant Contribution to QRP" award, and was also inducted into the QRP Hall of Fame by the QRP ARCI organization.

I think you'll agree that we're all lucky to have such talent and experience in our QRP ranks. If you haven't yet made up your mind to attend Atlanticon this year, now's the time to decide coming to come meet and listen to one of the giants in our hobby as he share his secrets to success in doing something that he loves with a passion: QRP homebrewing!

73, George N2APB n2apb@amsat.org
and Dave AA3UR njqrp-kits@comcast.net
Atlanticon QRP Forum at www.njqrp.org/atlanticon2003.html

Date: Thu, 27 Feb 2003 06:58:28 -0500
From: "John" <jdorson@worldshare.net>
To: "QRP-L" <qrp-l@Lehigh.EDU>
Subject: [146739] Embedded Research
Message-ID: <005e01c2de57\$9089dbb0\$ed988b41@ATHOME>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Does anyone know if they are still in business. I e-mailed the a questing regarding ordering and have not hears anything. I need to get a TICK1 for a trip I am taking soon.

Thanks.
John K2JHU...
South Island Real Estate
jdorson@worldshare.net

Date: Thu, 27 Feb 2003 07:12:17 -0500
From: "Mike Yetsko" <myetsko@insydesw.com>
To: <tcgroat@earthlink.net>,
"Low Power Amateur Radio Discussion" <qrp-l@lehigh.edu>
Subject: [146740] Re: About a billion miles per watt
Message-ID: <004801c2de59\$7ce78b00\$0200a8c0@charter.net>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

> The all-time miles per watt champion has finally fallen silent. At the end,
> path loss for the X-band path from Pioneer-10 to earth was about 315dB!
> Transmitter output is a not-quite-QRP 8W, but at 7.6 billion miles how can
> you complain about that? Read about it in the NASA press release.
>
> http://amesnews.arc.nasa.gov/releases/2003/03_25HQ.html
>
> --Tim (KR0U)

I thought Pioneer 10 had reduced power output for the last few years. Wasn't 8W it's original power output?

Mike

Date: Thu, 27 Feb 2003 08:33:25 -0500
From: "John Huffman" <hjohnc@core.com>
To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [146741] March Spartan Sprint Announcement
Message-ID: <000f01c2de65\$a3937b90\$edac59cf@jhuffman1t>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

-- Spartan Sprint Contest Monday --
Spring may be around the corner, but the March Spartan Sprint will be here first.

Hopefully, the autolog will be a bit more reliable this month.

The March Spartan Sprint will be held on March 3, 2003 (which is our standard date--the first Monday of the month). It's two hours of fun as you contact other QRP CW stations on 80, 40, 20, 15, 0r 10 meters. The contest starts at 9 pm Eastern, 8 pm Central, 7 pm Mountain, 6 pm Pacific. The exchange is RST - State - Power (e.g. 559 MI 5W). Contest details and rules are below.

NOTE - The deadline for logs is noon on Wednesday, Pacific Time.

-- Logging Programs --
Keep track of your Spartan Sprint contacts with our free contest logging program. Download the latest version at:
http://www.natworld.com/ars/pages/spartan_sprints/ss_logger.html

Steve, N90H, has written a plug-in for WriteLog to add ARS Spartan Sprint support that can be downloaded from Steve's website:
<http://wlmods.n9oh.com>

-- New Weight Rules --
We have clarified the weight rules for the Skinny Division. If you're a Skinny, look over the new rules at:
http://www.natworld.com/ars/pages/spartan_sprints/ss_weight_rules_new.html

-- Contest Rule Summary --
You may operate on any one or more of five bands--80, 40, 20, 15, and 10 meters. Don't worry if your station is a bit heavy and not quite trail-ready. We commend the winners in two categories--overall points (the

Tubby Division), and points per pound (the Skinny Division).

1. In the Eastern time zone, start at 9PM and end at 11PM, local time. In the Central time zone, start at 8PM and end at 10PM, local time. In the Mountain time zone, start at 7PM and end at 9PM, local time. In the Pacific time zone, start at 6PM and end at 8PM, local time. (When the U.S. is observing Standard Time, this slot is 0200 to 0400 UTC. When the U.S. is observing Daylight Time, this slot is 0100 to 0300 UTC.)

2. The frequencies will be 3560+- kHz, 7040 kHz+-, 14060 kHz+-, 21060 kHz+-, and 28060 kHz+-. (You may operate any number of bands--your choice.)

3. Exchange RST, SPC (state, province or country) and power output.

4. If you choose to call CQ, use the format "CQ SP," or "CQ QRP TEST."

5. You can take credit for working the same station on a second, third, or fourth band.

After the contest, we invite you to use our autolog, which is part of the ARS Sojourner. Just go to www.natworld.com/ars and follow the link for "Direct access to autologs". Or you can speed things up by going directly to the Spartan Sprint autolog page at www.natworld.com/ars/ss_log.html

"Station Weight" is defined as the combined weight of all transmitters, receivers, keys, keyers and batteries used during the Sprint. We use decimal pounds, rather than pounds and ounces. You may report your weight to the nearest 10th of a pound, or, at your option, the nearest 100th of a pound. For stations weighing less than one pound, we recommend the nearest 100th of a pound.

If you don't have access to the web, send John Huffman, NA8M, an email with your total QSOs and the total weight of your station. You may also include your comments from the soapbox. John's email address is hjohnc@core.com

We publish results for each Spartan Sprint on the Thursday following the Sprint. This may be the world's quickest contest reporting! Please send us your log as soon as possible, but in no event later than Wednesday at noon.

73 de NA8M

John

Contest Manager

Adventure Radio Society

Date: Thu, 27 Feb 2003 08:42:50 -0500
From: Larry Przyborowski <k3peg@comcast.net>
To: jdorson@worldshare.net,
Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [146742] Re: Embedded Research
Message-ID: <001b01c2de66\$1f1deac0\$6401a8c0@K3PEGMAIN>
MIME-version: 1.0
Content-type: text/plain; charset=iso-8859-1
Content-transfer-encoding: 7BIT

<http://www.embres.com>

73, Larry

> Does anyone know if they are still in business.

> Thanks.

> John K2JHU...

Date: Thu, 27 Feb 2003 06:57:00 -0700
From: "Al Gerbens" <agerbens@msn.com>
To: <qrp-1@Lehigh.EDU>
Subject: [146743] Small Wonders Lab SW20 kit
Message-ID: <NCBBJGKLIKICJIFIJENMAGEEIDDAA.agerbens@msn.com>
MIME-Version: 1.0
Content-Type: text/plain;
charset="Windows-1252"
Content-Transfer-Encoding: 7bit

I just finished building an SW20 kit and installed it in an x-Jelly Belly container.

Pics at:
<http://groups.msn.com/K7SBK/shoebox.msnw>

This is my first qrp radio kit, enjoyed building it, it worked right off and it survived the FYBO contest (indoors).

Al
K7SBK

Date: Thu, 27 Feb 2003 09:02:31 -0500
From: John R Kirby <n3aaz-qrp@juno.com>
To: qrp-1@Lehigh.EDU, gqrp@yahooogroups.com, QRPP-I@yahooogroups.com
Subject: [146744] Pioneer 10 SK reading yields a bunch of ham software
Message-ID: <20030227.090244.-368179.1.n3aaz-qrp@juno.com>
MIME-Version: 1.0
Content-Type: text/plain
Content-Transfer-Encoding: 7bit

I do not NORMALLY post *web SPOTS* STUFF. . .
but
WOW what a ham radio / QRP GOLD MINE . . .

Subject: SK Pioneer 10
<http://www.sciencedaily.com/releases/2003/02/030226073614.htm>
http://amesnews.arc.nasa.gov/releases/2003/03_25HQ.html

How sad but what an epoch benchmark ! ! !
Talk about an antenna system, google search DSN

. . . DSN+NASA+"amateur radio" will yield . . .
http://www.dxzone.com/catalog/Space/Amateur_Radio_Astronomy/

* * * lQqk at all this software > > > >

<http://www.dxzone.com/catalog/Software/>

APRS (9)
Antenna analysis (32) new
Audio Recorders (9)
Collections (25)
Contesting (28)
DSP (39)
Databases (21)
Grid Bearing and Maps (19) new
Logging (81)
Macintosh (30)
Morse Code Training (46) new
PSK31 (22)
Packet (38)
Propagation (28) new
RTTY (16)
Radio Control (59)
SSTV (24)
Satellite and Weather (37)
Spectrum analyzers (10)

Utilities (43)
and other topics . . .
 ANTIQUE RADIOS
 CB RADIO
 DEALERS
 DX RESOURCES
 FRS & GMRS
 HAM RADIO
 INTERNET & RADIO
 MANUFACTURERS
 OPERATING MODES
 PROPAGATION
 PUBLICATIONS
 REFERENCE
 SOFTWARE
 SWL & BCL
 TECHNICAL REFERENCE

For other "QRPP" stuff search
"Clouser" or "Lefty's deceiver".
Spring is almost here,
just another 6 to 12 dB snow
in late February to get rid of.

John
N3AAZ
OOTC
FM 19 xa

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Only \$9.95 per month!
Visit www.juno.com

Date: Thu, 27 Feb 2003 09:05:14 -0500
From: David Hinerman <WD8CIV@worldnet.att.net>
To: qrp-l@lehigh.edu
Subject: [146745] Re: SK: Pioneer 10
Message-ID: <5.1.1.6.1.20030227083439.00a60a60@ipostoffice.worldnet.att.net>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"; format=flowed

At 08:35 PM 2/26/2003 +0000, you wrote:

><http://www.sciencedaily.com/releases/2003/02/030226073614.htm>

>

>Pioneer 10 Spacecraft Sents Last Signal To Earth

Brad,

When I was a kid Pioneer 10 caught my imagination - the first vehicle to leave the solar system, and that carried a visual message to inhabitants of other worlds. When it came time to design a QSL card, I "borrowed" that graphic for my own use:

<http://home.att.net/~wd8civ/qs1.html>

Pioneer 10 has outlived 2 Space Shuttles, Skylab, Mir, and a long line of Mars missions, some of which were successful. It was lanched before Apollo 16 and 17. For a spacecraft designed for a 21-month mission, that's pretty good.

Nuts with the Energizer bunny - I want the kind of batteries Pioneer 10 uses!

You have to admit, NASA doesn't build 'em like that any more.

Dave

P.S. Pioneer 10's power source is a small quantity of plutonium, whose radioactive decay generates heat which is converted to electricity by a series of thermoelectric devices. I'm sure the Department of Homeland Security (not to mention my neighbors) would be annoyed if I installed one. D.

Dave Hinerman
WD8CIV@worldnet.att.net

Date: Thu, 27 Feb 2003 09:12:10 -0500
From: "John Huffman" <hjohnc@core.com>
To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [146746] Spartan Sprint Bonus
Message-ID: <007b01c2de6a\$f9d1c890\$edac59cf@jhuffman1t>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

To encourage radios that are trail-ready, there's a special recognition this

month.

You will be highlighted in the write-up if you operate the Sprint OUTDOORS!

Let's see who's willing to brave the elements and make the Sprint an adventure. Just put the gory details in your soapbox comments and will list the scores of the outdoor participants as an additional write-up.

Good luck and keep warm!

73 de NA8M
John
Contest Manager
Adventure Radio Society

Date: Thu, 27 Feb 2003 09:23:59 -0500
From: David Hinerman <WD8CIV@worldnet.att.net>
To: qrp-1@lehigh.edu
Subject: [146747] Re: Again the Channel Modem
Message-ID: <5.1.1.6.1.20030227090854.00a4ce70@ipostoffice.worldnet.att.net>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"; format=flowed

Brad,

Can you locate any sort of manufacture date or date code on the boards?

I wonder if this stuff is used in multiplex radioteletype gear. My Dad was a radio operator in the Navy in the 50s and 60s, and he told me about the multiplex gear they used that could carry dozens of teletype channels on a single transmitter signal. They used "channel packs" (I think that's what they were called) to separate individual signals from the stream.

Dave

At 09:52 PM 2/26/2003 +0000, you wrote:

>A little over a year ago I posted a few messages asking about some boards
>that I found which contained a brace of mechanical filters. I traced out
>the circuit as best as I could and had a pile of crude notes which I filed
>away. The other day I got an e-mail asking about those boards. This got me
>motivated to redraw the notes so that the circuit was a bit more
>understandable (well, you decide). I posted the drawings at:

>
><http://www.geocities.com/alibhernlem/Radio/ChannelModem.html>

>

>I've been scheming to use these to build a SSB transceiver but haven't
>developed a plan yet for the outboard bits. One of the questions that I
>have about the board itself is what purpose do those associated
>transistors serve in the '741 TX Audio circuit? The audio is apparently
>amplitude limited but I have never seen a circuit like this. Also, what
>exactly does a "phase equalizer" do?

>

>Any comments on this board, its function, its history, &c. are greatly
>appreciated.

>

>Brad KG6IOE

>

>

>-----
>Add photos to your e-mail with MSN 8. Get 2 months FREE*.

><http://join.msn.com/?page=features/featuredemail>

Dave Hinerman

WD8CIV@worldnet.att.net

Date: Thu, 27 Feb 2003 10:04:28 -0500

From: ae5x@netscape.net (John Harper AE5X)

To: qrp-1@lehigh.edu

Subject: [146748] Re: Embedded Research

Message-ID: <517A9F14.48591D6E.00003ABB@netscape.net>

MIME-Version: 1.0

Content-Type: text/plain; charset=iso-8859-1

Content-Transfer-Encoding: 8bit

John (jdorson@worldshare.net) wrote:

Does anyone know if they are still in business. I e-mailed the a questing
regarding ordering and have not hears anything. I need to get a TICK1 for a
trip I am taking soon.

Thanks.

John K2JHU...

Do yourself a favor and get one of these instead:

<http://www.mtechnologies.com/jhp/>

Infinitely better than a TiCK, in terms of both operation and customer service.

--

John Harper AE5X
80 Meter DXing & Outdoor QRP: <http://www.ae5x.com>

The NEW Netscape 7.0 browser is now available. Upgrade now! <http://channels.netscape.com/ns/browsers/download.jsp>

Get your own FREE, personal Netscape Mail account today at <http://webmail.netscape.com/>

Date: Thu, 27 Feb 2003 10:11:10 -0500 (EST)
From: "Scott Rosenfeld [N7JI]" <ham@w3eax.umd.edu>
To: John R Kirby <n3aaz-qrp@juno.com>
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [146749] Pioneer signals at -183 dbm
Message-ID: <Pine.LNX.4.44.0302271010120.1715-1000000@w3eax.umd.edu>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

Remember, that's 50 db below most of our receiver noise floors!

--
Scott Rosenfeld ARS N7JI
541-684-9970 Eugene, OR Land o' much rain
If you find me on the air, I'm probably in my car
ham@w3eax.umd.edu <http://w3eax.umd.edu/~ham>

Date: Thu, 27 Feb 2003 09:37:54 -0600
From: KD5NWA <KD5NWA@cbayona.com>
To: nkennedy@tcainternet.com,
"Low Power Amateur Radio Discussion" <qrp-l@lehigh.edu>
Subject: [146750] Re: Homebrew linear amp story Pt 2--Things heat up!
Message-ID: <5.2.0.9.0.20030227092709.00a85338@pop.cbayona.com>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"; format=flowed

Could be worst, for several weeks I have been looking for a box full of parts I bought over a six month period to build a homemade transceiver, and general stock for experimenting, about \$250.00 worth of parts. Well, yesterday my son came back from the yard, he was burning the paper trash, and he tells me there is a lot of stuff at the bottom of the trash barrel that isn't burning. He fished one out for me, it was a T157-6 core I had

bought to make a Z-Match tuner, and it was in the box with a lot of expensive high frequency transistors...etc. He must have picked up the box on my workbench, full of peanuts, and assumed it was garbage, well it is now.

Have a nice day.

At 07:10 PM 2/26/2003, Nick Kennedy wrote:

>The continuing story of one man's attempt to comprehend and tame a
>push-pull 10 watt linear amp ...

>

>I said plenty about the temperature compensated bias circuit except maybe
>one thing: Since there's just one compensating diode, I can only stick it
>on one transistor. Maybe that's OK, but we've all done power supplies with
>multiple transistors in parallel and had to use the little emitter
>resistors to make them share current equally, right? There's no emitter
>resistor here. Maybe the RF drive keeps things on the straight and level?
> I hope. Remember that with DC bias, the transistors are both driven
>together, and one may (will) turn on sooner than the other. But with RF
>drive, the two transistors "take turns" conducting. So if RF drive
>accounts for the majority of transistor dissipation (as it should), they
>should heat up about the same amount.

>

>I started out fairly carefully, verifying that the bias supply's control
>had the proper range before I'd even installed the transistors, and then
>cranking it to a low level, like 0.2 volts. Then I installed the
>transistors and put my DMM in series with the Vcc supply to them. Adjusted
>the bias and verified that after a moderate rise in I_c over several
>minutes, it did steady out.

>

>Now time to make some RF! I figured that if this thing is really linear, I
>could drive it to a low level using my MFJ-259B as a signal generator. Am
>I being idealistic? First I noted that the MFJ put about 1.9 Vp-p out to 50
>ohms as seen on the scope. Then put the MFJ in service driving the amp and
>the amp's output to 50 ohms, monitored by the scope. I'm not using a LPF
>at this point, so a reasonably sinusoidal looking waveform ought to clean
>up nicely. I also don't have the milliammeter in service any more. (Cue
>ominous music.)

>

>Fire everything up. I see a fairly decent looking output waveform several
>times the amplitude of the input, so it seems to be working. I stare at it
>for several seconds and it starts growing. Before too many seconds pass,
>the amplitude of the output has doubled and is still increasing! I push
>the panic button and jerk the alligator clip off the battery. Then I
>calculate the maximum output power and it's only about 0.6 watt. So no
>apparent danger, but does GAIN increase dramatically with temperature also?
> Is that something I was supposed to know but forgot? I guess so. Anyway,
>I hook it up again for another look. Playing with the bias control, I see

>that with less bias, the waveform is uglier and also smaller (gain
>reduced). But again I'm seeing the thing take off on its own.
>
>This time I decide to see if it will stabilize. It climbs up and fills the
>o-scope screen and then, ping!, suddenly drops down by 75%. Sinking
>feeling in the stomach. Now, I'll hardly bend down to pick up either a
>dropped penny or a 2N3904, but these things were \$3.50 apiece! Some facts
>become clear. A fuse would have been a nice touch. A current limited
>power supply would have been good. Monitoring the supply current might not
>have been a bad idea. I'm assuming that even though RF power was not out
>of hand, the DC current must have been running away, and that's not
>something I can see on the scope.
>
>So then I give the amp a few hours to cool off, and give myself a full day
>to cool off. Did I destroy one or both transistors? After the cool-off
>period, I hook it up again ... maybe it's working about the same as before,
>not sure. I see the output go way up. Shut it down and decide to check
>the temperature of the transistors. Here's an empirical rule: The
>temperature of a transistor is directly proportional to the speed with
>which you withdraw your hand after touching the tab. Yep, it's really hot.
>
>That's where I am now. Now, why is all this happening? Is this a DC
>thermal runaway problem? Or an RF problem? Am I compensating on the wrong
>transistor? One thought I had is to put a diode on each transistor and
>wire them in parallel. This gives what's called a "low select" circuit.
> The hotter transistor will control the bias voltage. That's starting to
>sound like a good idea.
>
>But what about the increase in gain? These kinds of circuits typically
>have RF feedback and this one is no different. From each collector is a
>150 ohm resistor connected back to base through a blocking capacitor. And
>a 39 ohm resistor from base to ground. I assume this is supposed to limit
>what I'm seeing.
>
>How about operating with low drive power as I'm doing? Maybe that allows
>the thing to get into the DC operating point asymmetry that would be
>overridden by RF power with the proper amount of drive. DeMaw says that
>you need adequate drive to overwhelm a tendency to self-oscillation. But I
>didn't see the oscillations on the scope. (I have seen this low drive
>problem on some of my old Ten Tecs. As I reduced drive, output would drop
>smoothly and then suddenly jump up to a high value.) Maybe my next step
>should be to drive the amp with a moderate amount of power. The
>oscillations could exist at a very low frequency, not visible on the scope.
>
>Another text said that some emitter degeneration is a good idea, although
>it reduces gain somewhat. That would mean a small value resistor in the
>emitter lead. I don't often see that done though. How about a bypassed
>emitter resistance, to force equal DC currents but not affect the RF gain?

> I haven't seen that done (in push-pull configuration) either, so there
> must be a reason. Maybe it's just not generally necessary.
>
> That's the end of part II. More experimentation is needed.
>
> Some lessons:
>
> 1) Protect expensive transistors during the initial test phase. Fuse,
> current limit, monitor. It's usually axiomatic that you can't protect
> semiconductors with fuses, but for current transients that aren't extremely
> fast, you probably can.
>
> 2) When using a finger for a temperature probe, lick it first. Withdraw at
> the first detection of a 'sssst' sound.
>
> 3) Read, experiment, blow-up, cuss, discuss, learn stuff, repeat as
> necessary.
>
>
> 72,
>
> Nick, WA5BDU
> in Arkansas

Cecil
KD5NWA

Date: Thu, 27 Feb 2003 10:44:05 -0500
From: Bob Patten <n4bp@bellsouth.net>
To: Pat n8vw <k2@linuxcolumbus.com>
Cc: elecraft@mailman.qth.net, SOC Reflector <soc@mailman.qth.net>,
QRP-L Reflector <qrp-l@lehigh.edu>
Subject: [146751] Elecraft qso party & SOC Marathon Sprint
Message-ID: <3E5E3245.7040904@bellsouth.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii; format=flowed
Content-Transfer-Encoding: 7bit

Pat n8vw wrote:

> The rules are up at <http://www.linuxcolumbus.com/eqp.html> and a text only
> version at <http://www.linuxcolumbus.com/eqp.txt> .
>
> Feel free to copy them to your hearts content now that they are out of
> draft. If you see anything quirky or problematic let me know.

>

This will also be the 4th running of the SOC Marathon Sprint which this year will be running simultaneously (how's that for a SOC word?) with the above Elecraft QSO Party. I plan to make the best of a possible bad situation by operating both. I'll try to work out an exchange that will satisfy participants in both and post what I come up with to both the Elecraft and SOC reflectors. It might be a lot of info exchanged during the time the two contests coincide!

I'll be using the new SOC club call, W0SOC for both events.

--

73, Bob Patten, N4BP

Plantation, FL

E-Mail: n4bp@arrl.net

Website: <http://www.qsl.net/n4bp>

QRP ARCI #3412

SOC #1

ARS #799

Whiners #6

FISTS #7871

Date: Thu, 27 Feb 2003 10:53:08 -5

From: "Bill Kelsey - N8ET - Kanga US" <kanga@bright.net>

To: qrp-1@Lehigh.EDU

Subject: [146752] Embedded Research is alive

Message-ID: <200302271552.h1RFqQ1b022087@rhombus.bright.net>

MIME-Version: 1.0

Content-type: text/plain; charset=US-ASCII

Content-transfer-encoding: 7BIT

Hi -

I have been talking with Gary of Embedded Research. He (and the company) are very much alive and well - just very busy doing other things. Gary and I are working out a few things, and I should have an announcement in the next few days about the availability of Embedded Research products through Kanga.

Stay tuned.

73 - Bill - N8ET

Kanga US

kanga@bright.net

<http://www.bright.net/~kanga/>

419-423-4604

Date: Thu, 27 Feb 2003 10:06:54 -0600

From: "W8TIF - Karl" <kkanalz@gcecis.com>
To: <WD8CIV@worldnet.att.net>,
"Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [146753] Re: Again the Channel Modem
Message-ID: <003b01c2de7a\$3f9e98d0\$9f1a0ed0@HamShack>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

I doubt that it was used for "multiplex RTTY" signals, David. The filters are too wide (3.55 kHz or so). This particular card could have been used for independant SSB voice channels (USB and LSB), although it looks like only one of several cards that would have been included in the "set".

I've seen systems that "stacked" TWO voice signals on the upper sideband and TWO voice signals on the lower sideband.... I wonder if this is part of such a system.

In any case, I'd just extract the filters and use them in some separate circuit....

Karl K - W8TIF
McKinney, Texas

----- Original Message -----

From: "David Hinerman" <WD8CIV@worldnet.att.net>
To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Sent: Thursday, February 27, 2003 8:23 AM
Subject: Re: Again the Channel Modem

> Brad,
>
> Can you locate any sort of manufacture date or date code on the boards?
>
> I wonder if this stuff is used in multiplex radioteletype gear. My Dad was
> a radio operator in the Navy in the 50s and 60s, and he told me about the
> multiplex gear they used that could carry dozens of teletype channels on a
> single transmitter signal. They used "channel packs" (I think that's what
> they were called) to separate individual signals from the stream.
>
> Dave
>
> At 09:52 PM 2/26/2003 +0000, you wrote:
> >A little over a year ago I posted a few messages asking about some boards
> >that I found which contained a brace of mechanical filters. I traced out
> >the circuit as best as I could and had a pile of crude notes which I

filed

> >away. The other day I got an e-mail asking about those boards. This got
me
> >motivated to redraw the notes so that the circuit was a bit more
> >understandable (well, you decide). I posted the drawings at:
> >
> ><http://www.geocities.com/alibhernlem/Radio/ChannelModem.html>
> >
> >I've been scheming to use these to build a SSB transceiver but haven't
> >developed a plan yet for the outboard bits. One of the questions that I
> >have about the board itself is what purpose do those associated
> >transistors serve in the '741 TX Audio circuit? The audio is apparently
> >amplitude limited but I have never seen a circuit like this. Also, what
> >exactly does a "phase equalizer" do?
> >
> >Any comments on this board, its function, its history, &c. are greatly
> >appreciated.
> >
> >Brad KG6IOE

Date: Thu, 27 Feb 2003 09:07:22 -0700 (MST)
From: "Mike" <kw1nd.web@homeinternet.net>
To: <qrp-1@Lehigh.EDU>
Subject: [146754] Re: Embedded Research
Message-ID: <27285.156.153.254.10.1046362042.squirrel@webmail.velocitus.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=iso-8859-1
Content-Transfer-Encoding: 8bit

Larry Przyborowski said:
> <http://www.embres.com>

Ah, but a website does not a company make. After my emails to them have
gone unanswered for weeks (but they didn't bounce), and since the web
pages have dates of 18-24 months ago, I had to assume they are essentially
dead and look elsewhere for my product needs.

73,

Mike KW1ND

Date: Thu, 27 Feb 2003 11:51:09 -0500
From: Steve.Lawrence@ITWFEG.COM
To: qrp-1@Lehigh.EDU
Subject: [146755] Re: SK: Pioneer 10
Message-ID: <0F4F13F36A.75F81E9D-0N85256CDA.005B24BB-85256CDA.005C92D8@itwfeg.com>
MIME-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Wow! Reading through a fascinating part of our radio history... downlink signal strength from the spacecraft last March (when two way communication was still possible) was as -183 dbm, peaking to a whopping -178.5 dbm, and a signal to noise ratio of -0.5 db.

Kind of makes the specs of the receiver sitting in the shack look sort of pale....

At 7.6 billion miles, uplink transmissions were sent with 200 kw. Let's see... that works out to 0.0000026 watts per mile, with one way radio transit time exceeding 11 hours! Is this a record???

73,
Steve
aa8af

Date: Thu, 27 Feb 2003 11:52:48 -0500
From: "Ken Newman" <N2CQ@Dandy.Net>
To: "W3BG" <W3BG@arrl.net>, "Norm Into" <normk8ni@neo.rr.com>,
"N4SO" <N4SO@Juno.com>, "List Elecraft" <Elecraft@mailman.qth.net>,
Subject: [146756] [CONTEST] N2CQ QRP Contest Calendar - March 2003
Message-ID: <019e01c2de80\$b2769050\$0b0a0a0a@D910G521>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

~~~~~  
N2CQ QRP CONTEST CALENDAR  
March 2003  
~~~~~

40 METER FOXHUNTS (Ends Mar 20)
Fox Hunt - Thursdays - 9pm EST, 8PM CST, 7PM MST and 6PM PST.

Info: <http://www.cqc.org/fox>
Truffle Hunt - Thursdays - 30 min before Fox Hunt
Info: http://fpqrp.com/pig_hunt.html

ARRL International DX Contest (SSB) ... QRP Category
Mar 1 - 0000z to Mar 2 - 2400z
Rules: <http://www.arrl.org/contests/rules/2003/intldx.html>

Adventure Radio Society - Spartan Sprint (CW) ... QRP Contest!
Mar 4 - 0200z to 0400z (Monday evening in US/Canada)
Rules: http://www.natworld.com/ars/pages/spartan_sprints/ss_rules.html

CZEBRIS Contest (CW) ... QRP Contest!
Mar 7 - 1600z to Mar 10 - 2359z
Rules: <http://www.sk3bg.se/contest/czebris.htm>

AGCW QRP-Contest (CW) ... QRP Contest!
Mar 8 - 1400z to 2000z
Rules: <http://www.agcw.de>

Elecraft QSO Party (CW/SSB) ... QRP Category
Mar 8 - 1500z to Mar 9 - 1500z
Rules: <http://www.elecrafter.com>

Second Class Operator's Club (SOC) Marathon Sprint (CW) .. QRP Contest!
Mar 8 - 1800z to 2400z
Rules: <http://www.qsl.net/soc/>

North American Sprint (RTTY) ... QRP Category
Mar 9 - 0000z to 0400z
Rules: <http://www.ncjweb.com/sprintrules.php>

UBA (Belgian) Spring Contest (CW-80m) ... QRP Category
Mar 9 - 0700z to 1100z
Rules: <http://www.uba.be/>

Wisconsin QSO Party (CW/SSB)...QRP Category
Mar 9 - 1800z to Mar 10 - 0100z
Rules: <http://www.warac.org>

Somerset Homebrew Contest (CW/SSB - 80 Meters) ...QRP Contest!
Mar 15 - 0000z to 2400z (Any 4 hours)
Rules: <http://www.sk3bg.se/contest/somerset.htm>

Virginia QSO Party (CW/SSB) ... QRP Category
Mar 15 - 1800z to Mar 17 - 0200z
Rules: <http://www.qsl.net/sterling/uf1.htm>

Oklahoma QSO Party (CW/Digital/Phone) ... QRP Category

Mar 22 - 1100z to Mar 23 1100z

Rules: <http://www.qsl.net/okdxa/OKQP.htm>

~~~~~  
Spring QRP Homebrewer Sprint (CW/PSK31) ... QRP Contest!!!!

Mar 24 - 0000z to 0400z (Sunday evening in US/Canada)

Rules: <http://www.njqrp.org/data/qrphomebrewersprint.html>

~~~~~  
ATLANTICON - Mar 28/29, 2003

~~~~~  
CQ World-Wide WPX Contest (SSB) ... QRP Category

Mar 29 - 0000z to Mar 30 - 2400z

Rules: <http://home.woh.rr.com/wpx/>

~~~~~  
Thanks to WA7BNM, SM3CER, N0AX-(ARRL) and others
for assistance in compiling this calendar.

Anyone may use this "QRP Contest Calendar" for your website, newsletter,
e-mail list or other media as you choose.

(Include a credit to the source of this material of course.)

72 de

Ken Newman - N2CQ

N2CQ@ARRL.NET

<http://www.njqrp.org/data/contesting.html>

<http://www.n3epa.org/Pages/Contest/contest.htm>

<http://www.qsl.net/cqrp/contests.html>

Date: Thu, 27 Feb 2003 11:02:37 -0600 (CST)

From: Bruce Rattray <rattray@gpfn.sk.ca>

To: QRP-Canada <qrp-canada@neale.gpfn.sk.ca>,
Low Power Group <qrp-l@LeHigh.EDU>

Subject: [146757] ARRL International DX Contest

Message-ID: <Pine.LNX.4.33.0302271100480.15482-1000000@neale.gpfn.sk.ca>

MIME-Version: 1.0

Content-Type: TEXT/PLAIN; charset=US-ASCII

Can anyone point me to a web site that has a program to log this contest
and produce the output in the Cabrillo format please?...thank you...

..72/73 - Bruce (VE5RC+VE5QRP) QRP-C#1 QRP-L#886 ARCI#9683 Zombie#272

A-1 Operator Club - 10/10# 944 - QRP Borg#1 - Whiner#10 -

- VE5QRP SOC#11 - VE5RC SOC#12 - oo#148 - K2#2032 - COG#15 -

"QRP! How sweet it is!"

"I am da man wit "DAH" paddle!"

Date: Thu, 27 Feb 2003 11:26:51 -0600
From: "Doc K0EVZ" <dock0evz@earthlink.net>
To: "qrp-l reflector" <qrp-l@lehigh.edu>
Cc: "doc k0evz earthlink" <dock0evz@earthlink.net>
Subject: [146758] FOX Hunts *Tonight* [g]
Message-ID: <4120032427172651754@earthlink.net>
MIME-Version: 1.0
Content-type: text/plain; charset=US-ASCII

Gang:

It is only a few hours until the twin FOX hunts tonight. We have two excellent FOXes all queued up and ready to run. One is Karl K5DI from NM, and the other is Ron W8RU from MI. Here's hoping we have excellent propagation.

Full details have been posted by the FOXes themselves. The FOX web site is at <http://www.cqc.org/fox/>. Good luck.

73,
--Doc/K0EVZ

Date: Thu, 27 Feb 2003 13:11:06 -0500
From: David Hinerman <WD8CIV@worldnet.att.net>
To: qrp-l@lehigh.edu
Subject: [146759] Re: SK: Pioneer 10
Message-ID: <5.1.1.6.1.20030227130721.00a7fa80@ipostoffice.worldnet.att.net>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"; format=flowed

At 11:51 AM 2/27/2003 -0500, you wrote:

>Wow! Reading through a fascinating part of our radio history... downlink
>signal strength from the spacecraft last March (when two way communication

>was still possible) was as -183 dbm, peaking to a whopping -178.5 dbm, and
>a signal to noise ratio of -0.5 db.

>

>Kind of makes the specs of the receiver sitting in the shack look sort of
>pale....

Steve,

Receiver technology has improved quite a bit since Pioneer 10 was launched.
I'm sure NASA would have lost contact long ago if not for the DSP
capabilities that are available now.

>At 7.6 billion miles, uplink transmissions were sent with 200 kw. Let's
>see... that works out to 0.0000026 watts per mile, with one way radio
>transit time exceeding 11 hours! Is this a record???

I'm sure it is - there's nothing else we know of that far away that we can
even attempt to communicate with.

I wonder - is that 200kW actual transmitter power, or is it ERP? Those big
dishes used for uplink have quite a bit of gain.

Dave

Dave Hinerman
WD8CIV@worldnet.att.net

Date: Thu, 27 Feb 2003 13:29:04 -0500
From: "John" <jdorson@worldshare.net>
To: <jdorson@worldshare.net>,
"Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Subject: [146760] Re: Embedded Research
Message-ID: <008d01c2de8e\$1f0ccc90\$6c9a8b41@ATHOME>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Thanks to all who responded to my request. Some very good sites which I will
look at.

Thanks again. John K2JHU...

----- Original Message -----

From: "John" <jdorson@worldshare.net>

To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Sent: Thursday, February 27, 2003 6:58 AM
Subject: Embedded Research

> Does anyone know if they are still in business. I e-mailed the a questing
> regarding ordering and have not hears anything. I need to get a TICK1 for
a
> trip I am taking soon.
>
> Thanks.
> John K2JHU...
> South Island Real Estate
> jdorson@worldshare.net
>

Date: Thu, 27 Feb 2003 13:45:53 -0500
From: jhecht@dnaco.net
To: qrp-1@Lehigh.EDU
Subject: [146761] Re: Atlanticon Speaker: Jim Kortge, K8IQY
Message-ID: <1046371553.3e5e5ce1dbeff@webmail.siscom.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=ISO-8859-1
Content-Transfer-Encoding: 8bit

I must say that this is a fantastic radio. I built 2N2/30 #002, and it is
truely remarkable. This should prove to be a great presentation. Great
material by a great presenter.

I wish I could be there to see it.

Best 72

Jeff - K8GD

Date: Thu, 27 Feb 2003 14:35:37 -0500
From: Alex <kr1st@amsat.org>
To: ham@w3eax.umd.edu
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [146762] Re: Pioneer signals at -183 dbm
Message-ID: <3E5E6889.513A7E2B@amsat.org>

MIME-version: 1.0
Content-type: text/plain; charset=us-ascii
Content-transfer-encoding: 7bit

"Scott Rosenfeld [N7JI]" wrote:

>

> Remember, that's 50 db below most of our receiver noise floors!

So I actually have a better chance hearing it when I turn the receiver off, right? :)

Btw, what frequencies did they use?

73,

--Alex KR1ST

Date: Thu, 27 Feb 2003 11:45:02 -0800
From: Bob Nielsen <nielsen@oz.net>
To: Bruce Rattray <rattray@gpfn.sk.ca>
Cc: Low Power Amateur Radio Discussion <qrp-l@lehigh.edu>
Subject: [146763] Re: ARRL International DX Contest
Message-ID: <20030227194502.GA633@n7xy.net>
Mime-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Disposition: inline

There's always QRP Dupe (<http://members.mato.com/bkassel>)

73, Bob N7XY

On Thu, Feb 27, 2003 at 11:02:37AM -0600, Bruce Rattray wrote:

>

> Can anyone point me to a web site that has a program to log this contest
> and produce the output in the Cabrillo format please?...thank you...

>

> ..72/73 - Bruce (VE5RC+VE5QRP) QRP-C#1 QRP-L#886 ARCI#9683 Zombie#272

> A-1 Operator Club - 10/10# 944 - QRP Borg#1 - Whiner#10 -

> - VE5QRP SOC#11 - VE5RC SOC#12 - oo#148 - K2#2032 - COG#15 -

> "QRP! How sweet it is!" "I am da man wit "DAH" paddle!"

>

>

--

Bob Nielsen, N7XY
Bainbridge Island, WA
IOTA NA-065, USI WA-028S

n7xy@n7xy.net
<http://www.n7xy.net>

Date: Fri, 28 Feb 2003 06:56:07 +1100
From: "Graeme Zimmer" <gzimmer@bigpond.com>
To: <WD8CIV@worldnet.att.net>,
"Low Power Amateur Radio Discussion" <qrp-l@lehigh.edu>
Subject: [146764] Re: SK: Pioneer 10
Message-ID: <005901c2de9a\$45302c30\$5ddefea9@zim2000>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Dave,

> I wonder - is that 200kW actual transmitter power, or is it ERP? Those big
> dishes used for uplink have quite a bit of gain.

Is actual power.
The TX can manage more than twice that if required.
The dish has around 30 db gain.

With the 11+ hours one way trip, a given dish would transmit a command and
then receive the reply 24 hrs later when the earth had rotated one full
turn...

Some pix of the Tidbinbilla dish here.....
<http://www.cdsc.nasa.gov/Pages/Home/gallery.html>

..... Zim VK3GJZ

Date: Thu, 27 Feb 2003 14:56:48 -0500
From: David Hinerman <WD8CIV@worldnet.att.net>
To: qrp-l@lehigh.edu
Subject: [146765] Re: SK: Pioneer 10
Message-ID: <5.1.1.6.1.20030227145546.00a77090@ipostoffice.worldnet.att.net>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"; format=flowed

Zim,

Thanks! Boy, 200MW of ERP must play heck with low-flying birds.

Dave

At 06:56 AM 2/28/2003 +1100, you wrote:

>Dave,

>

> > I wonder - is that 200kW actual transmitter power, or is it ERP? Those big
> > dishes used for uplink have quite a bit of gain.

>

>Is actual power.

>The TX can manage more than twice that if required.

>The dish has around 30 db gain.

>

>With the 11+ hours one way trip, a given dish would transmit a command and
>then receive the reply 24 hrs later when the earth had rotated one full
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>

>Some pix of the Tidbinbilla dish here.....

> <http://www.cdsc.nasa.gov/Pages/Home/gallery.html>

>

>

>..... Zim VK3GJZ

Dave Hinerman

WD8CIV@worldnet.att.net

End of QRP-L Digest 2844
